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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,773	02/26/2002	Paul Gothard Knutson	PU020045	1194
7590 05/21/2008				
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EXAMINER				
SHEPARD, JUSTIN E				
ART UNIT		PAPER NUMBER		
2623				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/084,773

**Applicant(s)**

KNUTSON ET AL.

**Examiner**

Justin E. Shepard

**Art Unit**

2623

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 and 13-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/5508)  
Paper No(s)/Mail Date 8/24/07
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments, see Appeal Brief, filed 3/11/08, with respect to the rejection(s) of claim(s) 1-4, 6-9 and 11-14 under 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Saunders, Ortega and Tanabe.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6-9, and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saunders in view of Ortega in view of Tanabe.

Referring to claim 1, Saunders discloses an outdoor unit for a satellite ground system comprising:

downlink circuitry operative to receive a satellite signal from a satellite (figure 1), frequency lock to the satellite signal (column 5, lines 66-67; column 6, lines 1-4), process the satellite signal (bottom half of figure 2), and provide the processed satellite signal to an indoor unit of the satellite ground system (column 8, lines 38-43); and

uplink circuitry operative to receive an uplink signal from the indoor unit, process the received uplink signal (column 6, lines 39-42), and transmit the processed uplink signal to the satellites only when said downlink circuitry is receiving said satellite signal from said satellite and is frequency locked to said satellite signal from said satellite (column 4, lines 25-31).

Saunders does not disclose a system wherein the satellite signals are satellite television signals; and wherein the system simultaneously transmits and receives data.

In an analogous art, Ortega teaches a system wherein the satellite signals are satellite television signals (paragraph 27).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the television broadcasting using satellites, taught by Ortega, in the system disclosed by Saunders. The motivation would have been that using satellites to broadcast television is a way of providing data to a large amount of users without a large data network being needed.

Saunders and Ortega do not disclose a system wherein the system simultaneously transmits and receives data.

In an analogous art, Tanabe teaches a system wherein the system simultaneously transmits and receives data (column 2, line 63 to column 3, line 7; Note: the applicant's Specification (page 24, lines 1-15) detail that the uplink only transmits when the downlink signal is received, as is taught by Tanabe.).

At the time of the invention it would have been obvious for one of ordinary skill to add the simultaneous receiving/transmitting taught by Tanabe to the system disclosed

by Saunders and Ortega. The motivation would have been to enable more data to be received/transmitted as the waiting delay would be eliminated, therefore allowing the system to be more efficient.

Note: Saunders does not disclose an outdoor or indoor units, but the units in the block diagram could be located indoors, outdoors, or some combination thereof.

Claims 6 and 11 are rejected on the same grounds as claim 1.

Referring to claim 2, Saunders discloses an outdoor unit of claim 1, wherein the uplink circuitry is further operative to receive an uplink control signal (column 4, lines 61-62) indicating a frequency locked condition to signals from one of the first or second satellites from the indoor unit (column 4, lines 25-31).

Claims 7 and 12 are rejected on the same grounds as claim 2.

Referring to claim 3, Saunders discloses an outdoor unit of claim 2, wherein the uplink control signal comprises an uplink data signal and an uplink oscillator signal (column 5, lines 37-38).

Claims 8 and 13 are rejected on the same grounds as claim 3.

Referring to claim 4, Saunders discloses an outdoor unit (24) of claim 3, wherein the uplink oscillator signal is derived from one of the first or second satellite television signals (column 5, lines 5-7).

Claims 9 and 14 are rejected on the same grounds as claim 4.

Claims 5, 10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saunders in view of Ortega in view of Tanabe as applied to the claims above, and further in view of Kwentus.

Referring to claim 5, Saunders discloses a system wherein error correction is performed on the oscillator signal (figure 2, parts 214, 222, and 226).

Saunders, Ortega and Tanabe do not disclose an outdoor unit, wherein the uplink oscillator signal is derived from frequency conversion error data from one of the first or second satellite television signals.

In an analogous art, Kwentus teaches an outdoor unit, wherein the uplink oscillator signal is derived from frequency conversion error data from one of the first or second satellite television signals (paragraph 46, lines 2-3 and 6-9).

At the time of the invention it would have been obvious for one of ordinary skill in the art to use frequency error data to synchronize the system clock, as taught by Kwentus, in the system disclosed by Saunders, Ortega and Tanabe. The motivation would have been that the more accurate the system clock is, the more accurately the uplink data will be transferred.

Claims 10 and 15 are rejected on the same grounds as claim 5.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gerakoulis (US Patent 5,838,669) teaches (in figure 4) a subscriber unit requiring a sync signal before transmitting an upstream signal.

Beidas (US Publication 2002/0141356 A1) teaches synchronizing an uplink signal using a synchronization signal found in the downlink stream.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin E. Shepard whose telephone number is (571) 272-5967. The examiner can normally be reached on 7:30-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chris Kelley/  
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